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PROFESSOR FLINDERS PETRIE'S SCHEME OF AN ETHNOLOGICAL STORE-HOUSE.

OF late years many scientific men have realized that the function of museums has been imperfectly understood. Some museum officials still regard museums more in the light of cabinets of curiosities than as serious teaching institutions. There are two distinct ways of treating museums from the educational point of view; these may briefly be described as the method of the text-book or the plan of dictionary; a combination of the two is always difficult and often impossible.

To explain my meaning: The bulk of people go to a museum for intellectual amusement; they are interested in natural objects or in the works of man, and they visit the museum in a laudable spirit of curiosity and with a desire to receive instruction. What these people require is a comparatively small number of objects suggestively arranged, with descriptive labels and accompanied by carefully chosen drawings, photographs and maps. In a properly arranged museum of this type it should be impossible for any intelligent visitor to leave it without having gained definite instruction. This is what I venture to call the text-book museum.

The more serious student, he who is seeking to advance knowledge, requires a very different type of museum. It is necessary that he should have access to a large number

of specimens, and it is here that the recent way of studying natural history and anthropology makes itself felt. Formerly students were satisfied if they could see one or two specimens of any given species of plant or animal, or an example of a shield or a spear of a given tribe. Now they have learnt that it is necessary to have long series of representatives of a species or of the various implements and weapons of primitive races. The old order belonged to the period when the fixity of species was an article of faith. To-day the naturalist is more interested in varieties and intermediate forms. Formerly the naturalist delighted in clearly cut classifications; now he revels in tracing the infinite gradations of nature and in endeavoring to learn their significance. The same applies to the anthropologist; those, for example, who study the decorative art of savage peoples or of pre-historic times have to visit as many museums as possible in order to get a sufficiently long series to enable them to trace the origin and distribution of certain designs. No museum is likely to be too large for such students. This is what may be termed the dictionary type of museum, and the specimens contained within it require, like the words in a dictionary, to be so arranged that they can be referred to with the minimum amount of trouble.

Those who have seen the great stores of duplicates in such museums as the National Museum, of Washington, or the Agassiz Museum, at Harvard, will recognize that our American colleagues have realized this need; but there are many practical difficulties. In large towns space is too valuable to admit of the accumulation of long series, unless they are to be so stored as to be studied under great difficulties; and certain large objects, such as many anthropological specimens, would occupy so much space as to preclude their being collected. Further, the cost of the dust-proof cases which are absolutely necessary in cities is very great.

Appreciating the need for the collecting of long series of anthropological specimens; for the desirability of having representatives, or representations, of all the objects made by vanishing tribes of natives; and for the advisability of keeping together associated objects from extensive archæological excavations, Professor Flinders Petrie has devised a scheme which will give the greatest possible storage space for a given expenditure. This scheme, which he brought before the meeting of the British Association at Liverpool, is briefly as follows:

The conditions for a repository with such a scope are so wholly different from those of existing museums that the proportions of expenditure are entirely changed. The essential and primary condition is that space shall be of minimum value; and, as it is desirable to keep down wages and the cost of moving objects, it is needful that, whatever the amount of expansion, no rearrangement should be necessary.

The type of structure must, therefore, be a long gallery, with lateral expansions to be built as any section increases. The galleries must be sufficiently wide apart to allow of any likely increase, however irregularly distributed.

An economical type of gallery would be one about 54 feet wide, divided into a nave and two aisles, the latter being subdivided into bays, 16 feet long. From these bays lateral expansions would be added whenever necessary. The walls should be low —say 10 feet—and about one-fourth of the roof should be of glass, which would ensure the galleries being well lighted.

The essence of the scheme is that the site shall be ordinary agricultural or wooded land, so that, however irregular the expansion, the unoccupied land will continue to be productive. Thus every possible need of the future can be accommodated without

incurring more immediate expense than is now requisite, and without any loss of interest on capital not utilized. For this purpose it would not be unreasonable to secure about 500 acres. On this land galleries of 54 feet wide, built in blocks of 100 bays, or 1600 feet in length, should be placed at about a furlong apart. This would allow of each gallery expanding on either side for about 250 feet of out-building.

Each gallery should have in the middle of its length a policeman's cottage (fireproof) with its windows looking along the inside of the gallery.

The site should be within a short journey from London; fairly dry and sandy if possible, and belts of trees should occupy the spaces between the galleries and thus reduce the effect of wind and rain.

No glass cases would be required except for a few objects that needed to be kept dry. There would be little dust in a wooded country, and the absence of any internal heating and the filtration of all air passing in would diminish the chance of dust. Where glass was desirable, large loose sheets could be laid over boxes or shelves, and specimens could be put out of reach by having strips of wood screwed down to secure the glass.

In his memorandum on this 'Proposed Repository for preserving Anthropological or other Objects,' which was printed in the Report of the Association for 1896 (p. 935), Professor Petrie enters into further details and offers suggestions concerning the constitution of the trustees and the duties of the keeper, as well as the disposition and ownership of the specimens. He estimates that the total cost *per annum* would be $2,450 for a building equal to half the British Museum exhibiting area, and the securing of space for future building up to 50 or 100 times the present exhibiting area. This amounts to 1½ per cent. on the present annual grant to the British Museum at Bloomsbury.

This scheme led to a lively discussion and various objections were raised against more or fewer of the details, the most serious being that Professor Petrie had greatly underestimated the prime cost and the annual expenditure. In his reply he faced all the objections and admitted that even if the cost was greater than he had allowed for, some such scheme as his would be vastly cheaper than any museum as at present constituted.

It is first necessary to take a broad view of the situation, and to decide whether it is desirable to greatly increase our anthropological and archæological collections. Anthropology is so recent a science that its full importance is realized only by a few, and there is a very real danger that by the time the general public is educated to recognize its value a very considerable amount of material will have disappeared. All scientific anthropologists agree in asserting that it is desirable to collect examples of all objects made by vanishing peoples, and to preserve them for future generations. The next question is, whether sufficiently extensive collections can be stored in existing museums, and whether the cost of warehousing them and of providing suitable cases is not likely to be somewhat excessive—so much so as to cause the curators to limit the acquisition of specimens. It is much to be feared that this is what would actually occur; but what is required is that the accommodation should be of such a nature that no desirable specimen should ever be refused.

If existing museums are unsuited for indefinite expansion new ones must be built. Professor Petrie has proposed a scheme which may well form the basis of a discussion until it is replaced by a better. The great point to remember is that the problem is fast reaching an acute phase and it must soon be faced.

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